

REMARKS

SUMMARY

Claims 1-21 are pending in the application. Claims 1-21 were rejected. Claim 3 has been amended.

Applicants appreciatively acknowledge the Examiner's consideration of previous arguments in "Response to Arguments" item 7 on page 8 of the above-identified Office Action.

CLAIM OBJECTIONS

In "Claim Objections" item 2 on page 2 of the above-identified Office Action, the Examiner objected to claim 3 because of an informality. The Examiner's suggested correction has been made. No new matter is believed to be introduced by this amendment to claim 3.

Before discussing the prior art in detail, it is believed that a brief review of the invention, as claimed, would be helpful. Claim 1 calls for, *inter alia*, a method of computing including:

receiving at execution time, **a data processing specification** having a first and a second unnested data processing cell specification specifying a first and a second data processing cell respectively, with **each data processing cell specification** having a plurality of statements **including a formula specifying an action or computation**, the first data processing cell having a data dependency on the second data processing cell, **and specified in a manner to be analyzed before the second data processing cell;**

analyzing in real time, the first and then the second data processing cell specification **to determine execution order** of the

DRAWING AMENDMENTS

The attached sheets of drawings include changes to Fig. 3b. This sheet which includes Fig. 3a & 3b, replaces the original sheet including Fig. 3a & 3b. In Fig. 3b, a previously mislabeled table element regarding “Cond2” linking Cell A to Cell B instead of to Cell C was corrected.

Please approve the drawing changes that are marked in red on the accompanying “Annotated Sheet Showing Changes” of Figs. 3a & 3b. A formal “Replacement Sheet” of amended Fig. 3b is also enclosed.

Attachments: Replacement Sheet

Annotated Sheet Showing Changes

actions/computations specified by the first data processing cell specifications, **based at least in part on interaction or computation references between the actions or computations specified;** and

effectuating the data processing specified by the data processing specification **in accordance with the determined execution order** of the actions/computations specified by the data processing cell specifications.

Claims 11 and 21 include similar language.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

In “Claim Rejections – 35 USC § 102” item 4 on page 2 of the above-identified Office Action, claims 1-6, 8, 9, 11-16, 18-19, and 21 have been rejected as being fully anticipated by printed publication “Expressive Power of XSLT”, a preliminary version being presented July 2000 at the International Conference on Computation Logic, by *Bex, et al.* (hereinafter **BEX**) under 35 U.S.C. § 102(a). Applicants respectfully traverse.

While the rejections indicated in “Claim Rejections – 35 USC § 102” item 4 on page 2 of the above-identified Office Action are noted, applicants respectfully submit, as will be seen from the following, that **BEX** may not be available as a prior art reference against the instant application. As such, it is believed that claims 1-6, 8, 9, 11-16, 18-19, and 21 were patentable over the cited art in their previously presented form and have not been amended to overcome the **BEX** reference.

AVAILABILITY OF BEX

More specifically, applicants are currently unable to determine the “actual” priority date of the publication, because the Examiner has not provided the applicants with a copy of what was actually presented July 2000 at the 1st International Conference on Computation

Logic. Rather the reference provided to the applicants specifically states in the footnote on page 1, "*A preliminary version of this paper* was presented at the 1st International Conference of Computational Logic, London, July, 2000." (emphasis added) Clearly, the use of the term "preliminary version" indicates that the reference provided in the Office Action may have significant changes over what was actually presented at the conference. Moreover, the applicants filed the instant application less than 6 months after the date of the conference making it possible that the provided article was actual published after the instant application was filed.

Applicants hereby request that the Examiner either provide the actual publication date of **BEX** or provide the preliminary material that was actually presented July 2000. If the Examiner is able to provide either the actual publication date of **BEX** or to provide the preliminary material that was actually presented July 2000 as required, a new rejection should be issued as either the material or the priority date will change.

Moreover, **BEX** indicates in the penultimate paragraph on page 1 that "the database community" has noted that "the transformations XSL can express are rather limited. For instance, XSL does not have joins or skolem-functions (and hence cannot do sophisticated grouping of output data). In other words, XSL lacks the most basic property any query language should have: it is not relationally complete." This introductory paragraph provides insight into the intended purpose of **BEX** to promulgate XSLT as a potential database query language. As **BEX** appears to be non-analogous art to cell based data processing as taught by the instant application, applicants respectfully request the Examiner's clarification on this matter.

APPLICABILITY OF BEX

To anticipate the instant application **BEX** must teach EVERY element of the claim as indicated in MPEP 2131, specifically "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art

reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In fact MPEP 2131 clarifies that not only must the claim be expressly or inherently described, but adds that "**The identical invention must be shown in as complete detail as is contained in the ... claim.**" *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)(emphasis added).

The **BEX** reference discloses the addition of "variables and parameter passing between template rules" in combination with the XSL "use of modes" to show query functionality, but **BEX** does "not provide a model for all of XSLT." The last paragraph on page 2 of the Office Action appears to improperly equate the use of a Document Type Definition (DTD) in **BEX** with "a data processing specification" as recited in claims 1, 11, and 21 of the instant application. As indicated by its name, a DTD defines the building blocks of a document by defining the document structure with a list of elements. A DTD can be declared inline in an XML document, as part of a header file, or as an external reference library.

In contrast, the instant application requires that the "data processing specification" include "a plurality of data processing cell specifications **with each data processing cell specification ... including a formula specifying an action or computation**" as recited in claim 1, claim 11, and claim 21 of the instant application. Thus, in the instant application, each data processing cell defines the "action or computation" within the data processing cell specification **upon introduction to the data processing specification**. The embodiments introduced in the specification of the instant application on pages 6-8 provide further examples. The DTD of **BEX** merely defines the document "type" in the header file, whereas "data processing specification" of the instant application defines not only the type, but also the "action or computation" of "each data processing cell specification" as recited in claims 1, 11, and 21.

Modes as described in **BEX** are actually states as used in finite state machines. Thus, according to **BEX** (page 3), a basic XSLT program is merely “a collection of template rules where each rule consists of a matching pattern, a mode (which indicates the (finite) state the computation is in), and a template.” From the starting mode an XSLT program begins at the root node and proceeds until the program arrives at a node in a certain mode and searches for a template rule for the certain mode having a pattern that matches the node. If such a template rule is found, the template is executed. Execution of a template in accordance with **BEX** generally instructs XSLT to produce XML output, and at various points in this XML output to select lists of nodes for further processing. Once the selecting patterns in **BEX** have selected pertinent nodes, the selected nodes are processed independently and the **“documents that are constructed by these subprocesses are inserted at the positions where the subprocesses were generated.”**

In contrast, the instant application requires **determining** an “execution order of said actions/computations” as recited in claim 1, claim 11, and claim 21 of the instant application. **BEX** only **inserts** “documents...at the positions where the subprocesses were generated.” There is no effort to analyze execution order as illustrated in Figs. 3a-3b of the instant application, nor is the data processing performed “in accordance with the determined execution order” as recited in claims 1, 11 and 21.

Clearly, **BEX** does not show a “data processing specification” including multiple unnested data processing cell specifications **“with each data processing cell specification ... including a formula specifying an action or computation”** as recited in claim 1, claim 11, and claim 21 of the instant application. Nor does **BEX** teach or suggest **“determining execution order** of said actions/computations specified by said data processing cell specifications” as recited in claim 1 of the instant application.

In view of the foregoing, the Examiner is requested to immediately withdraw the rejections under 35 U.S.C. § 102 in item 4 on page 2 under “Claim Rejections – 35 USC §

102” of the above-identified Office Action and issue a Notice of Allowance where appropriate.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In “Claim Rejections – 35 USC § 103” item 6 on page 6 of the above-identified Office Action, claims 7, 10, 17, and 20 have been rejected under 35 U.S.C. § 103(a) as being obvious over **BEX** in view of W3C publications “XML Path Language (XPath) Version 1.0” (hereinafter **XPATH**) and “XSL Transformations (XSLT) Version 1.0” (hereinafter **XSLT**) that are purportedly stable documents published as W3C recommendations on 16 November 1999. For at least the reasons previously provided, applicants traverse.

While the rejections indicated in item 6 “Claim Rejections – 35 USC § 103” on page 6 of the above-identified Office Action are noted with traverse, applicants respectfully submit, as was previously indicated, that **BEX** may not be available as a prior art reference against the instant application. More specifically, it is believed that claims 7, 10, 17, and 20 were patentable over the cited art in their previously presented form for at least the reasons explained above and, therefore, the claims have not been amended to overcome the references.

As described in MPEP 2142, to establish a *prima facie* case of obviousness over the instant application, three basic criteria must be met by the proposed combination of **BEX** and **XSLT / XPATH**. First, there must be some suggestion or motivation, either in **BEX** or in **XSLT / XPATH** or in the knowledge generally available to one of ordinary skill in the art, to modify or to combine the teachings of **BEX** and **XSLT / XPATH**. Second, there must be a reasonable expectation of success. Finally, **BEX** and **XSLT / XPATH**, when combined, must teach or suggest all the claim limitations of the instant application. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in **BEX** and **XSLT / XPATH**, and not be based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As the teachings and suggestions of **XSLT / XPATH** do not compensate for the previously described deficiencies of **BEX**, the proposed combination does not teach or suggest ALL of the claim limitations and can not establish a prima facie case of obviousness. This is particularly true since **BEX** is an introductory primer for the “Expressive power of XSLT” and **XSLT / XPATH** are specifications defining “the syntax and semantics of XSLT” and “common syntax and semantics for functionality shared between XSL Transformations (XSLT) and Xpointer (XPointer)” respectively. Thus, the very semantics that make **BEX** inapplicable also remove **XSLT / XPATH** as applicable references.

Moreover, assuming that **BEX** may not be available as a prior art reference against the instant application, the remaining combination of **XPATH** and **XSLT** would similarly fail to make up for the previously discussed deficiencies of **BEX** and the additional deficiencies created by the removal of **BEX**.

In view of the foregoing, the Examiner is requested to withdraw the rejections under 35 U.S.C. § 103 in items 6 on page 6 of the above-identified Office Action and where appropriate issue a Notice of Allowance.

CONCLUSION

Accordingly, it is believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 11, or 21. Claims 1, 11, and 21 are therefore believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 1 or claim 11.

In view of the foregoing, reconsideration and allowance of claims 1-21 are solicited. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (206) 407-1509. If any fees are due in connection

with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

Date: April 4, 2005

by: Kyle H. Flindt
Kyle H. Flindt
Reg. No.: 42,539

SCHWABE, WILLIAMSON & WYATT, P.C.
Pacwest Center, Suites 1600-1900
1211 SW Fifth Avenue
Portland, Oregon 97222
Telephone: 503-222-9981



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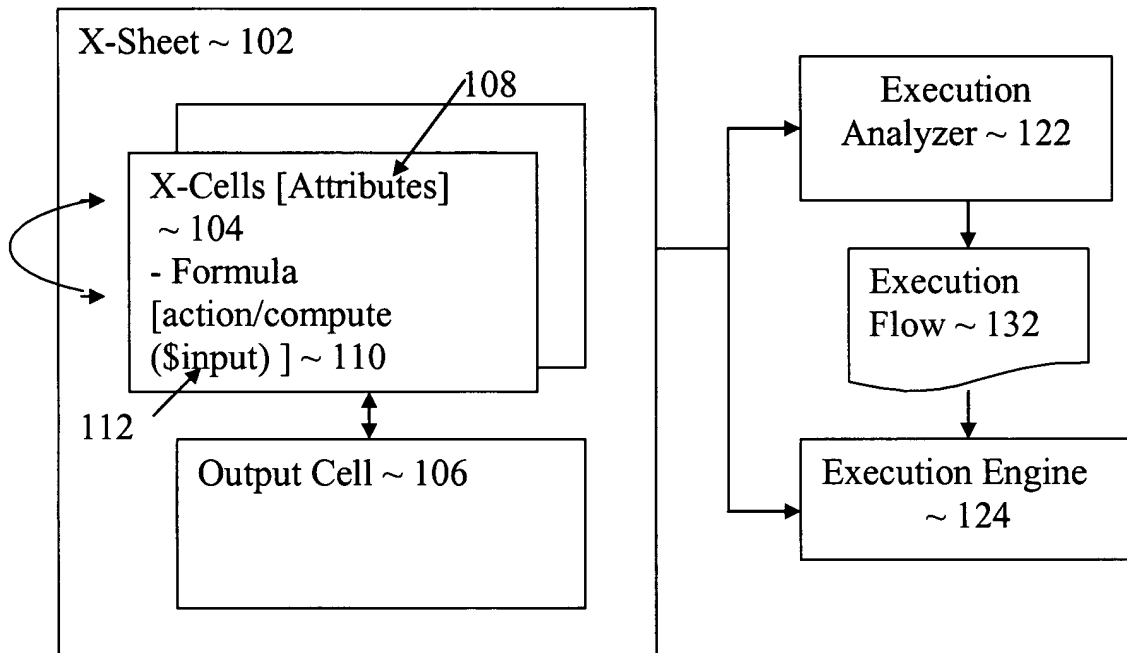


Figure 1

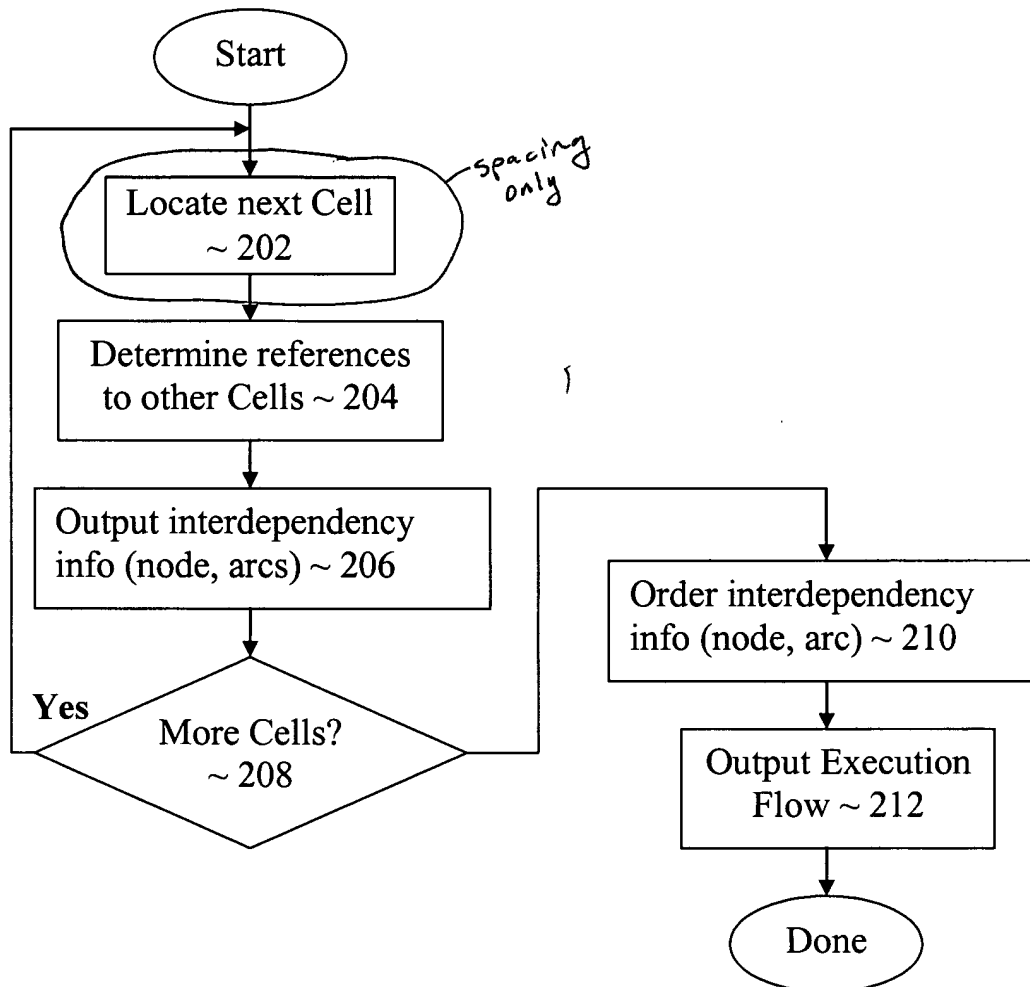


Figure 2

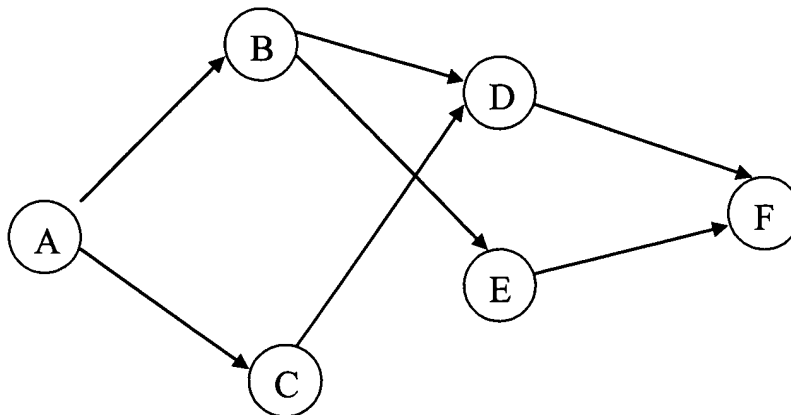


Figure 3a

Cell	Condition	Cell
A	Cond1	B
A	Cond2	C
B	Cond3	D
B	Cond4	E
C	N/A	D
D	N/A	F
E	N/A	F

Figure 3b

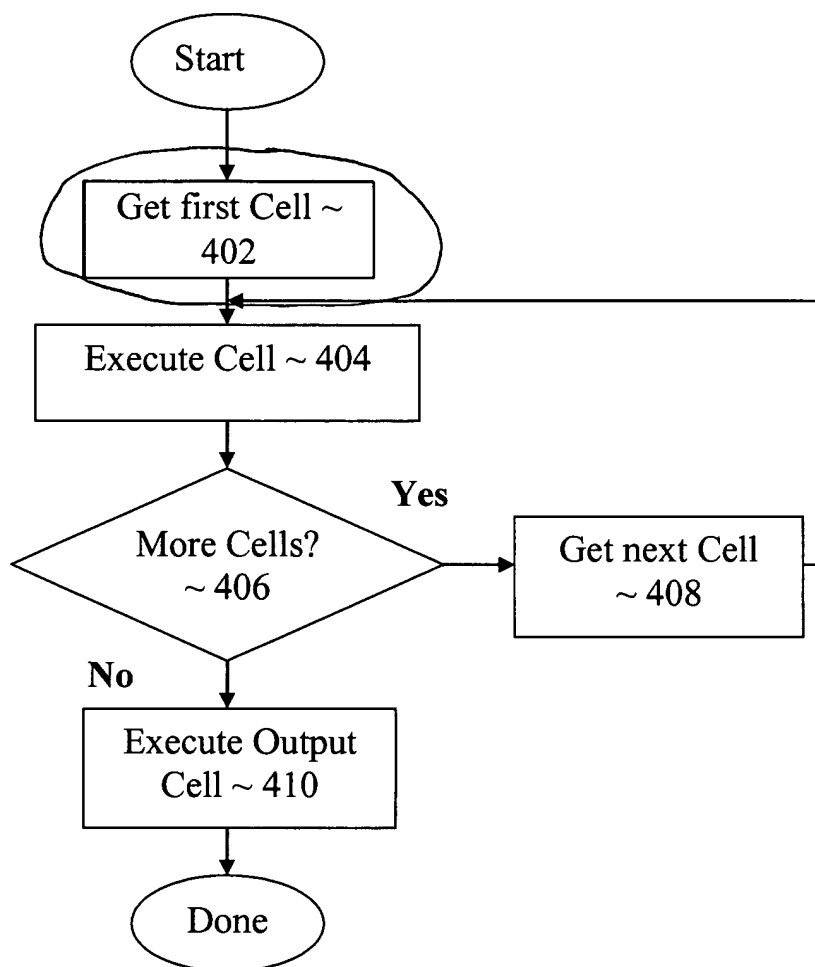
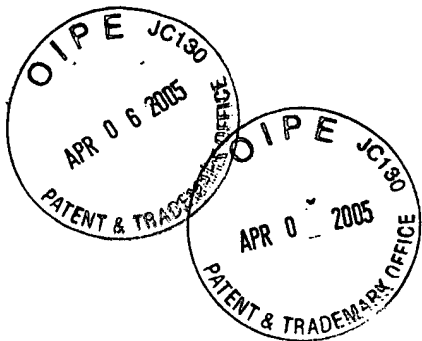
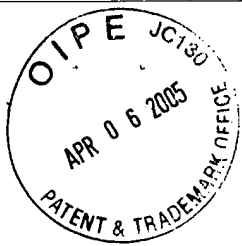


Figure 4



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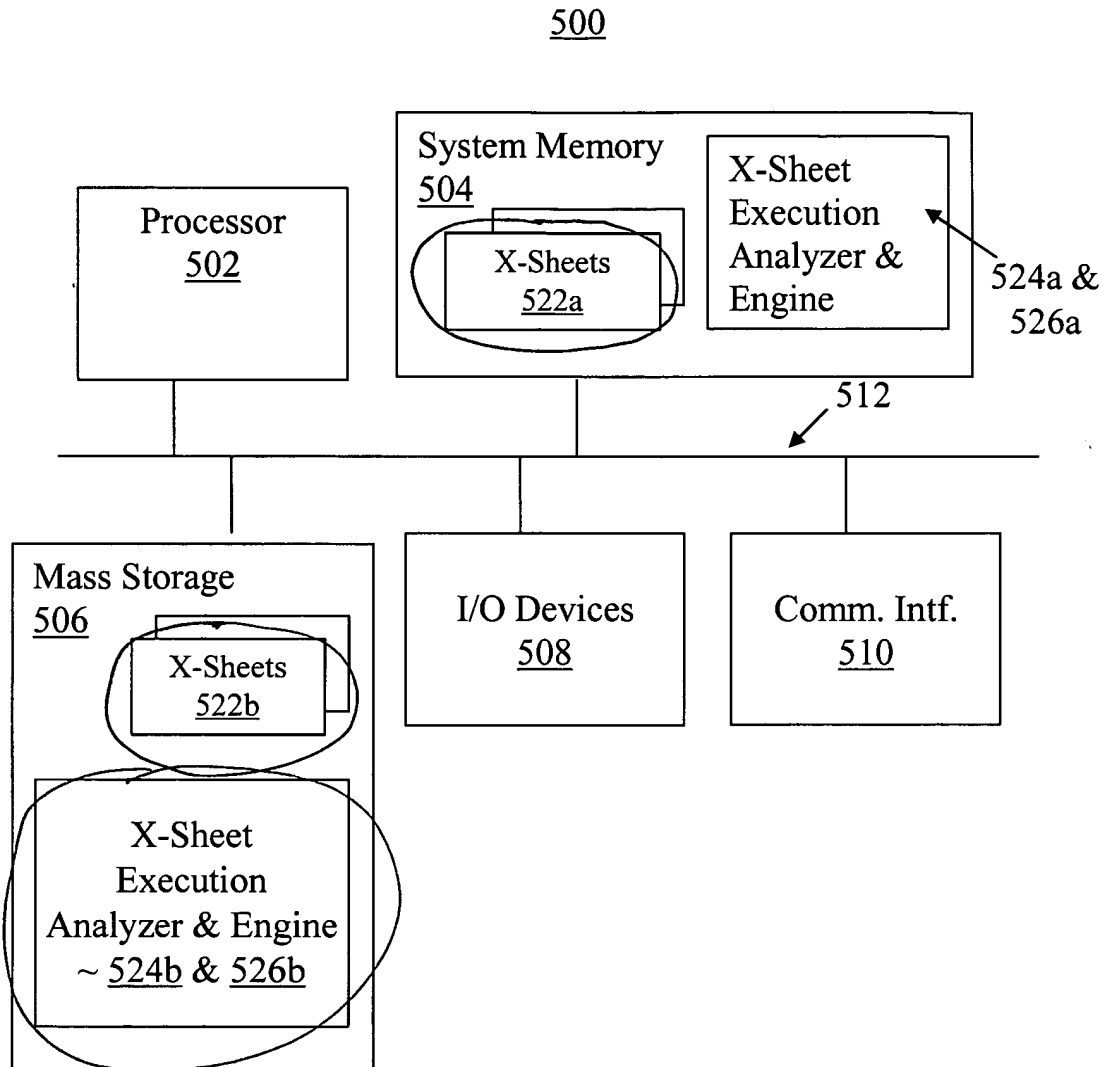


Figure 5